Leading or Trailing Strokes

Posted by wickededge - 21 Aug 2012 16:45

I did a quick experiment with the .6 Micro-Fine Ceramic stones and edge-leading and edge-trailing sharpening. First I polished the edge .25um with the kangaroo strops. Here is the clean edge:

I didn't go for perfect, just good enough to have a clean slate.

Next I did 5 very light trailing strokes with the .6um Micro-Fines at 5 degrees wider. Here is the result:

I did another 20 strokes, edge-trailing:

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Re: Leading or Trailing Strokes

Posted by wickededge - 16 Dec 2012 15:57

Geocyclist wrote:

Calling Clay.....

I read the entire post here. Sound like edge trailing creates a better edge (as in smoother), by using very light pressure the "burr" or slop on the bevel is minimized. Using strops this is cleaned up. Is it accurate to say the better edge comes from edge trailing?

I think more testing is in order! I've got a pair of identical Shun knives that I'll use for the test. I'll sharpening them with the exact same progression with the same number of strokes, one edge leading, the other trailing. Of course I won't be able to strop the edge leading knife. Then I'll need some series of tests to perform on each, so I'm open for suggestions on that 🙂
Maybe a few for sharpness and a few for durability.

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Re: Leading or Trailing Strokes

Posted by Geocyclist - 16 Dec 2012 23:41

Clay,

I would like to see some tests before/without stropping. Like you say stropping is only 1 direction. Plus it may erase the difference found between leading and trailing. I am more surprised that you didn't have a preference after hundreds of knives.

I would suggest some "initial" sharpness test, such as phone book paper slicing, push cuts, cutting the side that's hard to cut.

Then some durability tests, such as 100 cuts of rope then back to phone book paper.

I am curious about both initial and long term edge characteristics. Is one way more toothy and/or more durable?

Also neat to see the microscope shots too.

Finally, if there is a disadvantage to one direction, does stropping correct it?

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Re: Leading or Trailing Strokes

Posted by wickededge - 17 Dec 2012 13:05

Thanks for the feedback. I actually do have a preference, edge trailing, but it too is based on anecdote. Our collective experience is really valuable, but I am always hesitant to make a solid statement about the superiority of one technique over another without really testing it as rigorously as possible. I think your plan sounds good and I'll get started on it soon.

Geocyclist wrote:

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Re: Leading or Trailing Strokes

Posted by wickededge - 17 Dec 2012 13:31

Geo - for the first test, what would you like to see for the finish grit? How coarse? Also, what angle?

Geocyclist wrote:

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Re: Leading or Trailing Strokes

Posted by Geocyclist - 17 Dec 2012 20:16

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Thanks Clay.

What is your opinion here? I would say for the coarseness and angle obviously keep both knives the same. After that use a "normal" angle. Where "normal" means a angle typical to the knife and application. Thinking we want to see results affected by leading/trailing and not a result of some extreme angle. For coarseness I would say 1000#. Unless you think finer is better.

I have some interesting questions about this topic, but I am very much a new-be at this.

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Re: Leading or Trailing Strokes

Posted by wickededge - 19 Dec 2012 14:59

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Did a little testing after prepping some samples. The first one is at 15 degrees and 1600 grit ceramic finish.

Here is a picture of the edge with edge-leading strokes:

and with edge-trailing strokes:

Both cut phone book paper cross grain fairly well though the cuts from the edge-trailing were noticeably smoother.

So far, I've tested the durability of the edge-leading blade by cutting strips of triple-walled cardboard, two layers thick. The edge-leading blade completed 45 24" cuts before failing to cut the phone book paper.

Here is the edge-leading blade after cutting the cardboard:

For both blades, I used very consistent, VERY light strokes once the bevels were set and I started working up the grits. I'll complete the durability testing of the edge-trailing knife as soon as we get through the rest of the shipping frenzy.

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Re: Leading or Trailing Strokes

Posted by Geocyclist - 19 Dec 2012 16:17

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Thanks Clay, nice photos. Please expand on your explanation.

Here is what I see, but not sure I am interpreting the photos correctly.

The edge trailing edge looks much crisper. However, the edge leading edge looks "dark" . Is this the edge of the just lighting in the photo.

Looks like the edge is nearly gone after cutting cardboard.

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Re: Leading or Trailing Strokes
Posted by wickededge - 19 Dec 2012 16:41

I'm trying to understand it as well, but it looks like there is some folding or blunting of the edge with the edge-leading blade. I was careful to use very light pressure, so I don't think it's coming from heavy handedness. I'll have to redo that blade and triple check my angles etc... to rule out any inconsistency of the sharpening angle. The edge does look fairly well obliterated after the cardboard, but I'll want to repeat that process to verify.

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Re: Leading or Trailing Strokes
Posted by cbwx34 - 19 Dec 2012 19:17

Nice pics!!!

Another factor you might consider is to have someone else do the sharpening... I'm thinking maybe someone who is familiar with the WE, but doesn't have a lot of experience on it... might show a different perspective. The sharpener is a factor in the equation after all....

He or she also could not tell you which is which ahead of time... help eliminate a potential bias...

Just a thought! ☺

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Re: Leading or Trailing Strokes
Posted by wickededge - 19 Dec 2012 19:28

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Nice pics!!!

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Just a thought! 🙂

Are you volunteering? 🙂

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